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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,740	12/31/2001	Young-Hwa Kim	H49.12-0002	4461

7590 09/26/2003

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EXAMINER

PIERCE, JEREMY R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/036,740	KIM ET AL.	
	Examiner	Art Unit	
	Jeremy R. Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10, drawn to a fabric comprising a plurality of guard plates, classified in class 428, subclass 911.
- II. Claims 11-14, drawn to a method of making a fabric, classified in class 427, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the fabric may be manufactured by coating the plates with a second material and then bonding them to the fabric.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Steven Koehler on September 15, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 11-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4, 5, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Gould et al. (U.S. Patent No. 5,200,263).

Gould et al. disclose a puncture resistant composite comprising a fabric substrate and a plurality of guard plate assemblies affixed to the fabric in a spaced relation to each other (Figure 8A). The first layer of material is the collection of guard plates while the second layer of material on the surface opposite the fabric substrate is the elastomer. With regard to claims 4 and 5, the elastomer material fills the gaps between the plates, as seen in Figure 8A. With regard to claim 8, a third material in the form of another plate is joined to the second layer of elastomer, as seen in Figure 8A. With regard to claim 9, the elastomer would have higher friction than the metal platelets because they are designed to act as a bonding agent.

7. Claims 1, 2, and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Neal et al. (U.S. Patent No. 6,035,438).

Neal et al. disclose a ballistic resistant material with a plurality of disks attached to a flexible fabric substrate (Abstract). The ceramic plates have a second and third material that is different adhered to them in the form of an adhesive and a layer of glass or aramid fibers (column 4, lines 46-65). With regard to claim 9, the adhesive layer, would have a higher friction than the ceramic disks. With regard to claim 10, the glass or aramid fibers, acting as the second layer of material, would be more wear resistant than the ceramic disks.

8. Claims 1, 2, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fortier et al. (U.S. Patent No. 4,810,559).

Fortier et al. disclose a protective web comprising a piece of fabric with a plurality of small platelets spaced on the fabric (column 1, lines 31-40). The platelets may be glued onto the fabric (column 1, line 44). The first material comprising the platelets would be the glue, and the second material would be the platelets themselves. With regard to claim 10, the platelets would inherently be more wear resistant than the glue because the platelets are placed on the fabric to supply wear resistance (Abstract), and would not be needed in the invention of Fortier et al. if the glue were capable of providing wear resistance.

Claim Rejections - 35 USC § 103

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9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fortier et al. in view of Neal et al.

Fortier et al. do not disclose using a third material. Neal et al. disclose using epoxy resin and glass or aramid fibers onto ballistic resistant plates in order to increase its ability to absorb impact (column 4, lines 52-55). It would have been obvious to one having ordinary skill in the art to add epoxy resin and glass or aramid fibers onto the surface of the disks in Fortier et al. in order to increase the ability to absorb impact, as taught by Neal et al.

11. Claims 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fortier et al. in view of Neal et al. and further in view of Moureaux et al. (U.S. Patent No. 5,943,694).

The combination of Fortier et al. and Neal et al. do not teach the additional material, epoxy resin and glass or aramid fibers, to not completely cover the plate. The combination also does not teach that not all plates need to be covered with the additional material. Moureaux et al. teach that when a ballistic resistant material is reinforced with another material, that the reinforcement need only be present in the areas where it is most needed (column 7, line 64 –column 8, line 3). It would have been obvious to one having ordinary skill in the art to cover some but not all of the plates of

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Fortier et al. and to partially cover other plates of Fortier et al. where protection is needed most with the epoxy resin and glass or aramid fibers in order to better protect vital areas and keep the garment lightweight by avoiding unnecessary coating.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce
Examiner
Art Unit 1771

September 17, 2003



ELIZABETH M. COLE
PRIMARY EXAMINER